INSTITUTE FOR ADVANCED COMPOSITES MANUFACTURING INNOVATION

ABILITIES AND ACCOMPLISHMENTS

WORKFORCE EDUCATION, ECONOMIC DEVELOPMENT, AND MEMBERSHIP

One of IACMI’s goals is to identify the workforce that is likely to be directly affected by new composites technologies and develop the talent pipeline before new materials come to market. By creating relationships with education and workforce partners and increasing the workforce capacity now, world-class composites talent will be ready to work when new composites technologies are fully integrated into industry.

TECHNOLOGY PROJECTS

IACMI has a growing number of projects underway designed to meet the Institute’s technical goals of lowering carbon fiber-reinforced polymer (CFRP) cost and reducing CFRP embodied energy while improving composite recyclability into useful products. Recent project announcements include:

Big Area Additive Manufacturing (BAAM) materials development and reinforcement with advanced composites

**Partners:** Local Motors, Oak Ridge National Laboratory, University of Tennessee, Cincinnati Inc.

**Objective:** Integrated design and materials selection, together with novel, low-cost reinforcing techniques will be used to optimize components for vehicle application.

Thermoplastic composite development for wind turbine blades

**Partners:** Colorado School of Mines, Arkema, Johns Manville, Purdue University, National Renewal Energy Laboratory (NREL), Vanderbilt University, University of Tennessee

**Objective:** Investigate new development in thermoplastic materials with industry partners to lower production costs, improve recyclability of wind turbine blades, and expand applicability to components demonstrated at large scale.

Compressed gas storage using thermoplastic composite technologies

**Partners:** DuPont, Steelhead Composites LLC, University of Dayton Research Institute, Composites Prototyping Center

**Objective:** Provide unique advantages to the storage of compressed natural gas with the use of thermoplastic composite technologies to achieve better durability, weight reduction, and recyclability.

Optimized resins and sizings for vinyl ester/carbon fiber composites

**Partners:** Ashland Composites, Zoltek, Michelman, University of Dayton Research Institute (UDRI), Michigan State University, and Jobs Ohio

**Objective:** Explore the optimization of resin fiber sizing, and carbon fiber combinations in the pursuit of better storage, cycle time, and cost.

FACILITIES AND CAPABILITIES

IACMI provides access to state-of-the-art facilities equipped with innovative and unique equipment to meet the needs of the evolving composites industry. IACMI continues to rapidly expand the composites ecosystem and to broaden capabilities within the industry. Visit iacmi.org to view IACMI’s core partner facilities.